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Fri Dec 28 21:38:32 1990

# General Information on -Momordica Charantia-

Gourd family, widely used in traditional medicine in the Orient and Carribean. The immature fruits are eaten by the Orientals as a vegetable, and in the Phillipines, the young leaves are used as seasoning. The plant is also known to certain elderly African-americans of the southeastern US. The plant should be shared freely along with this information.

## Description:

Vines with square sided stems, slender, weak, creeping or climbing stems, musky odor. Leaves alternate, palmate, dull-green, flabby, with 5 to 7 toothed leaflets. Fruit 1 to 8 inches long or more, bright orange when ripe, oval, pointed, fleshy, splits into 3 parts which curl back, revealing glistening, bright-red, moist sticky arils (seed coating) enclosing irregularly shaped elliptic brown seeds.

Common names and their associated cultures are: Bitterweed, Southeastern US; Serasee, Carribean islands; Bitter melon, Oriental immigrants to the US; Carillon, Latin America; Mexicane, Cajun "traeteur" of Louisiana, USA; Kho Qua, Vietnam; K'u Kua, China; also, Balsam Pear, Boston Pear, Boston Apple, Bitter Gourd, Bitter Cucumber, Concombre Amer, and Bitterleaf.

Raw fruits and seeds contain more of the active principle than leaves, so caution should be taken when dealing with these. Leaves may be eaten raw in small quantities. A pregnant woman should not use momordica, as it is an ingredient in some abortifacent mixtures. Although the plant is slightly toxic in the raw state, and less so when prepared, it is safe to use externally, and may be prepared in many ways for either use.

Any new information of interest should be forwarded to the author at the address below. The author is particularly interested in chemical analyses, recipes, anecdotes of treatments, experimental results, and references to this plant in published works. Although this plant is well known to certain non-western cultures, it is virtually unknown in the US and Europe. Therefore, any credit due for this information should be given to the author by real name, J. Dee Pinkney.

References:


- Wild Plants for Survival in South Florida- Julia F. Morton, Trend House, 1306 W. Kennnedy Blvd, Tampa, Fla, 1974. The botanical description above was taken from this work.
- A Barefoot Doctor's Manual- The American translation of the Official Chineese Paramedical Manual, Running Press, 38 S Ninteenth St., Philadelphia, PA 19103
- In addition, it is packed for shipping by Emballes Par China National, Kwangsi, People's Republic of China.


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Uses of Momordica

The leaves and fruits may be picked from the plant as needed, and used in many ways, dried or fresh, internally and externally. The leaves and fruits taken from the plant at the end of the season may be preserved by drying, tincture, canning, or other ways, for use when the fresh plant is not available. For external use, the leaves may be crushed and the juice applied to the skin. This has been used for insect bites, bee stings, burns, contact rashes, and small wounds. The ripe berries may also be preserved in spirits such as whiskey or vodka, and this applied to the skin. The leaves may be

boiled to make a decoction. Enough leaves should be used to give the decoction a strong bitter taste and impart color.

This decoction is drunk as preventative or treatment for many problems, such as stomachache, fever, infectious diseases, arthritis, diabetes, hypertension, even cancer. The decoction may also be used as a skin wash, or added to the bathwater. To make the taste of the decoction more tolorable, the leaves may be boiled with mint, or the decoction may be tempered with sugar, honey, or milk. The green fruits and leaves are used by Oriental peoples as a vegetable. Care must be taken in their preparation, since the fruit is slightly toxic when raw, less so when cooked.

The leaves may be finely chopped and added to cooked meat and vegetable dishes during the last few minutes of cooking. They impart a mild curry-like taste, bitter but not unpleasantly so. This suggests an easy way to introduce this plant to a person who will not drink the decoction. Green berries may be sliced thin, dried, and stored for use when the fresh plant is not available. These dried berry slices may be reconstituted in water and used in the same way as the fresh plant; or they may be boiled for a decoction or eaten as a vegetable. Although the raw leaves are said to be slightly toxic, small quantities can be dipped in honey, chewed slightly, and swallowed by some individuals. They can also be finely chopped and mixed with other raw greens for salad. If a single leaf, eaten in this manner, causes no discomfort, this is another way of gaining the medicinal benefits of momordica. The arils have a sweet taste with only slight bitter undertones. They should not be sucked directly from the seeds, however, since mouth enzymes may damage the seeds and make them unsuitable for planting. Instead, rub or wash arils from the seeds, and eat the arils. If any other uses of this plant is known, please forward them to this address: J. Dee Pinkney, UNO Box 727, New Orleans, Louisiana

70148.

## Anecdotal Uses of Momordica

Fresh leaves, crushed and applied to insect bites, relieve itching and lessens or sometimes prevents formation of welts or sores. The same effect can be had from fresh berries, reconstituted dried berries, or berries perserved in tincture. The decoction relieves skin rashes and heat rash. The crushed leaves have been used to relieve the pain of wasp stings, and no welts formed. A decoction of the leaves may be taken at the onset of infectious diseases, and the course of the disease will be mitigated. It may be taken during cold and flu epidemics as a prophylactic. It has been used to wash arthritic limbs, feverish children, and infected skin wounds; the effect has been strikingly beneficial. The decoction, taken regularly, has been used to regulate blood sugar and control diabetes.

A poultice of honey and crushed leaves was applied to second-degree gasoline burns. The person also ate raw leaves, in small quantities, dipped in honey and chewed slightly. The burns healed quickly, were totally free of infection, and no scaring was found after healing.

## "Bitter Melon Soup", a traditional Vietnameese recipe

Blanche several green melons in boiling water, cut lengthwise, and remove seeds. Stuff with a "pate" of meat if used, or soy protein, onions, and seasoning. Tie the melons together with rubber bands, and return them to boiling water. Cook for about an hour and salt to taste. My informant remarked "it is very good for the liver," and added that the melon may also be sauteed like summer squash, but "the soup is better for the liver."

## Planting and Horticulture Instructions for -Momordica Charantia-

Soak seeds in water for several days while moon is waxing or new. Prepare containers of good potting soil, well watered & drained. Plant seeds about 1 inch (3 cm) deep & 2 inches (6 cm) apart. Cover containers with cellophane & set in a warm, dark place.

When seeds sprout, remove cellophane & set near a sunny window; keep soil moist. When seedlings have produced 2 sets of true leaves, they should be transplanted to the ground, or if this is not possible, transplant to a large container of good soil (at most 2 or 3 plants to 5 gallons soil).

Transplant outdoors after season has become warm. Prepare a location with partial sun & good soil, well-watered & well-drained. Provide support for vines, with no other type of vine sharing this support (otherwise harvest will be difficult). The plant, a tropical annual in the gourd family, may need assistance to produce seeds if climate is insufficiently warm or moist. After several months, the plant will begin to produce male & female yellow flowers about 2-3 cm in diameter. Male flowers, more numerous, have a yellow center & conical base, while female flowers have a green center & small bump at the base. When a female flower appears, cross pollinate by gently touching several male flower centers with a soft implement (eg, feather, bit of soft paper, small pointed paintbrush, or fingertip if one has a light touch) & transferring pollen grains to center of female flower. If females flowers are numerous & bees are present, this procedure is not needed.

Few pests plague this plant, since leaves are very bitter. If pests appear, control by sprinkling plant with a mixture of cayenne pepper, garlic powder, & water, or with a light solution of soapy water.

Throughout the growing season, leaves may be taken from the plant to preserve by drying for use when fresh plant is not available. Take older leaves in mid- morning after dew has dried & no rain has fallen for several

days. When fruits develop, they will be soft, light green gourds with a bumpy or irregular surface. Allow to mature until they become orange, when they will split open to reveal a number of seeds. These seeds are covered in a sticky, bright red aril. Since the arils attract ants & birds, pick mature fruit when it begins to split. Scoop out seeds, wash thoroughly to remove arils, & set seeds out to dry. When dry, seeds may be wrapped loosely in clean brown paper & stored to plant next season. At the same time preserve the mature fruits. As an alternate way to remove arils, spread the seeds on a large, clean piece of cloth and allow to dry for a few days. Then, the arils may be easily rubbed from the seeds.

Planting and Horticulture Instructions for -Momordica Charantia- (cont.)

In temperate climates, the plant begins to lose vigor after about six to nine months. It will produce a large number of female flowers, & at the same time begin to weaken noticeably. At this time it should be harvested. Fruits which are nearly mature should be allowed to ripen, but may be picked so that seeds can be obtained. The immature fruits are removed & preserved by drying, canning, or other ways.

Near the end of the season the vines may be removed from their support & spread out to dry. While doing this, remove & discard any leaves which are defective. To preserve immature fruits, slice thinly & dry by spreading on a screen or blanket or stringing loosely. They should be set in partial sun & protected from moisture & insects. To preserve mature fruits, wash & cut into small pieces, & place in a container of spirits such as vodka or whiskey. This may be strained for a tincture, or used as is. Immature fruits may also be cooked & eaten fresh, canned, or preserved in other standard ways. The seeds may be planted & the cycle begin again when weather is warm, or at any

time for indoor cultivation.
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